AIR RECORDS LETTER

East Engin. Library

JUN 10 1940

JUNE 1, 1940

VOL. XXIV Nº 11

VOL. XXIII AIR CORPS NEWS LETTER NO. 11.

Information Division, Air Corps — June 1, 1940 — Munitions Building, Washington, D.C.

The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard, and others connected with aviation.

---oOo---

LOW TEMPERATURE PROPERTIES OF LUBRICANTS

By E.R. Irwin, Materiel Division

The selection of lubricants for use at sub-zero temperatures is of great importance in Air Corps operations. Not only is the effect of altitude to be considered (at 30,000 feet altitude the indicated temperature is -48 deg.F.) but the extremes of ground temperature in the continental United States at one time may vary by more than 100 deg. F. Airplanes changing latitude may encounter such changes in one-day flight. Low temperature lubrication, therefore, can not be divorced from the lubrication at moderately high temperatures.

Assuming that the specified lubricant has the properties necessary for satisfactory normal summer lubrication, how can satisfactory low temperature operation be assured? Fortunately, a great deal of work on the subject has been accomplished by Government and commercial laboratories, and it may be said that the low temperature characteristics of both oils and greases can be adequately predicted by a knowledge of their chemical composition and their physical properties over a moderate temperature range. Except for the evaluation of experimental lubricants of new chemical types, an actual low temperature performance test, which is both slow and costly, is unnecessary.

The first attempt by the Air Corps to classify the low temperature performance of the various types of lubricating oils was initiated in 1927, when 34 oils of selected and different properties were examined. The test program included a determination of the usual descriptive physical properties, including viscosity at three different temperatures on each oil, and a determination of piston drag and pumping rate in the cold room at temperatures to -20 deg.F.

This work showed (1) that the shear resistance of the oil, that is, the torque required to crank the engine, may be adequately predicted from the viscosity at 210 deg. F. and the increase in the viscosity at 100 deg.F., and (2) the fluidity of the oil is also a direct function of viscosity, providing the pour point is satisfactory. The matter of low temperature viscosity has since been greatly simplified by the work of Hershel (National Bureau of Standards). The continuation of this work by several large oil refining companies has resulted in the publication by the American Society for Testing Materials of their straight-line viscosity-temperature chart. The mathematical treatment of the ratio of the viscosities at 210 deg.F. and 100 deg.F. by Dean & Davis, termed by them "viscosity index," is also very convenient and practically significant, the higher viscosity index denoting the more satisfactory (lower) viscosity at low temperature.

While emphasizing the importance of the viscosity curve of the oil, the necessity of adequately low pour point may not be neglected. The partial solidification of the oil, causing cessation of flow at minimum pressure and termed "pour point," has but little effect on the shear resistance of the film. It is of primary importance in predicting the fluidity or "pumpability" of the oil.

For completely satisfactory "pumpability" the pour point should be not more than about 10 deg.F. above the minimum operating temperature. Fairly satisfactory pumping may be obtained with the higher viscosity index oils down to about 10 deg. below the pour point, providing the equipment has not stood idle for more than the usual overnight period. On standing below the pour point without intermittent warming or agitation, however, such oils become progressively more solidified. It is therefore desirable to specify a pour point slightly lower than the lowest operating temperature of the oil if such pour point is available. A satisfactory pour point having been established, the higher viscosity index then indicates the better of two or more oils.

Low pour point is a natural property of the naphthenic (western) oils and

high viscosity index is a natural property of the paraffinic (Pennsylvania) oils. However, modern methods of refining can produce satisfactory low temperature oils from either type of crude.

The low temperature shear of greases is not so accurately predicted from normal temperature properties, but an accurate general distinction may be made between good and poor greases. As might be expected, the best high temperature greases are not good at low temperatures. The reason for this is that all of the conventional modern lubricating greases are gels of soap and oil. The more stable gels are formed by larger amounts of soap and more viscous oils, both of which increase the low temperature shear torque. For high temperatures the stability of the gel is of primary importance and the conventional commercial high temperature greases are therefore very stiff and tough at temperatures about zero degrees Fahrenheit.

The first point of consideration in selection of the grease is the kind of soap to be specified. The soaps used extensively are those of calcium (lime), sodium (soda), aluminum, and lead, the latter only for gear lubricants as it produces a very soft gel. The order of desirability for low temperature is as given for the first three types.

The calcium-soap greases are of low melting point, plus and minus 180 deg.F., and if the grease must operate above 150 deg.F. temperature range, soda-soap is indicated. At low temperatures, aluminum-soap greases are very tough and viscous and should not be selected. (The most important desirability of aluminum soap greases is their high resistance to water). In addition to lower shear at low temperature, the calcium soaps also promote channeling which further reduces shearing torque.

For other equalities, a low soap content is preferred for low temperature as high soap content hardens the grease more rapidly as the temperature drops. In this way the soda-soap greases regain part of the advantage of the lime soaps as stable greases are formed with less of the soda soaps. For a soft grease, not more than 7 per cent of soda soap or not more than 13 per cent of lime soap may be specified. With the same oil the soda-soap grease may be from 10 per cent to 20 per cent more viscous than the lime-soap grease.

The nature of the oil content is less important than the kind and amount of soap. Data available are not too complete and indicate that pour point is the most important property. Excessive viscosities must, of course, be avoided. For about zero degrees Fahrenheit, an SAE 20 oil appears satisfactory. Lower temperatures require SAE 10. Even SAE 5 oil may be justified for extreme cold and low power input such as in aircraft control bearings, although the stability of greases with such viscosity is not good at high atmospheric temperatures.

The usual high temperature greases contain plus or minus 20 per cent of soda soaps in an oil of about SAE 60 viscosity. They are not applicable to low temperatures unless considerable excess power, seldom provided in aircraft and their accessories, is available for starting the equipment. The viscosity index should be controlled but is apparently less important than the pour point. Since high viscosity index plus low pour is expensive the present usual commercial practice is to use a medium viscosity index oil of very low (about -40) pour point.

The choice between oil and grease, if the application permits the use of either, is generally in favor of oil. While the torque of rotating at low speed and at minus 40 degrees a three-quarter-inch ball bearing lubricated with a lime-soap grease is only about one-half inch-pound, the torque with gun oil lubrication is scarcely measurable. An exception to this general rule is that of extremely high speed gears in which case the channeling of the grease may result in lower torque than is observed with the oil.

---oOo---

DATA ON B-23 BOMBING AIRPLANE

The Assistant Secretary of War, the Hon. Louis Johnson, announced recently that the Douglas Aircraft Company, Inc., is making deliveries of a new Bombardment airplane designated the B-23.

This airplane is a modification of the Douglas B-18A. It is of all-metal monocoque construction and shows extremely clean design. It is equipped with two 14-cylinder Wright engines with three-bladed propellers of 13½ feet diameter. The approximate gross weight of the airplane is 26,000 lbs., and it is adapted for a crew of six. The wing span is 92 feet; length, 58 feet and the height, 18 feet.

The B-23 is a Bomber of medium size and is expected to have improved performance characteristics over its prototype, the B-18.

---oOo---

An experimental flight into the sub-Stratosphere was recently completed by Hqrs. and Hqrs. Squadron, 25th Bomb. Group, Langley Field, Va. Major E.A. Hillery and 2nd Lieut. H.C. Dorney and

(Continued on Page 3)

DRAGGING A FIELD

The Section I methods of instruction at the Air Corps Advanced Flying School, Kelly Field, Texas, are spreading. Since Captain Hal Bundy, formerly and for many years a Section I instructor, has replaced Chief of Section II, Captain Jimmy Ellison, during the latter's tour at the Tactical School, the old Pursuit Section's theories of instruction are taking deep root at Section II. One of these theories is that all students take pride in their flying ability, as all good pilots do, and the thought of being ridiculed for thoughtlessness hurts more than a failing grade. Therefore, Captain Bundy, in the good old Section I manner, requested Flying Cadet X to submit the following paper and to read it, with gestures, before the assembled Section II:

"Dragging a Field in the proper manner is a subject of much contention. Usually a student has one idea and his instructor has another. For the purpose of this paper we will consider that the instructor's theory is the only true and proper way. Also, for the purpose of this paper we will consider that the student has mastered the fundamentals of navigation, and has managed to find the field at his destination. (That is a subject in itself, which we will not go into now.)

"We will take a hypothetical case and discuss first the student's approach to this subject, and then give in detail the instructor's method.

"The student has now sighted the field and after murmuring a prayer of thanksgiving, he heads toward the objective. He flys over the field at about 1600 feet and attempts to sight the wind sock. He makes the mistake of looking at the obvious locations, and of course, as you have already guessed, he doesn't see the sock. He finally decides 'which way the wind blows' by watching a plane take off. He then circles out of sight of the field and, having forgotten to call in, he dives over the field and pulls up in a roar of power. This pull up is sometimes called 'allowable buzzing.' Having completed his assignment, that is, 'dragging the field,' he then makes a three needle width turn around the field and finally lands, taxiing to a stop. He then parks, and turns around to his instructor with a wide 'Didn't I do that good?' grin, and is met with the following: 'You $&#' %#$'%#)$# AND SO ON,-- far into the night.' I have never been very good at decoding everything the instructor says, but brightly gathered that perhaps the student's approach to the subject was not so hot.

"This time, discussing the approved method, we will take it for granted, of course, that the student hits the objective on the nose. He circles the field and after calling in he drops to one thousand feet. My informer never did discover if this is one thousand feet above the ground or sea level, but no matter. (Correspondent's note - it would matter at Denver, Colorado). He drops to one thousand feet above the terrain and carefully circles the field, noting in the meantime all obstructions, wires, etc., etc. Being a little smarter, he immediately looks in the most unlikely place for the wind tee, and discovers it immediately. Having determined the wind direction, noting obstructions, dropping his wheels, moving the mixture control to full rich, and making certain that he is on his full tank, calling in, he then drops to about two hundred feet on a long straightaway approach. At the edge of the field he is about fifty feet high. He cruises across the field parallel to his intended line of landing, noting all hazards on the ground. No, the blonde sitting under the tree, for the purpose of this paper, is not considered a hazard. He then rises to 800 feet above the ground and circles the field to the left with a shallow bank, this time making a normal landing."

---oOo---

AERIAL PHOTOGRAPHY UNDER DIFFICULTIES

The 89th Reconnaissance Squadron, of March Field, Calif., demonstrated that it is a first class reconnaissance unit by its performance on the first assigned photographic mission.

Lieuts. Jack Hilger and Frank Norwood were assigned to photograph airports in the 4th Air Base Area, covering the States of New Mexico, Colorado, Utah and Nevada. A total of 35 fields was photographed under many adverse conditions. Snow, dust storms, excessive rough air, and other hardships were encountered, but the crew came through with a fine group of pictures. Several airports at an elevation of over 7500 feet were taken, also two at an elevation of over 8000 feet. Winds of a velocity up to 100 miles an hour were encountered on the trip. At one station, a wind which was strong enough to turn the props on the B-18A airplane practically took the ship off the ground.

---oOo---

Sub-Stratosphere Flight (From page 2) a complete crew took off for Des Moines, Iowa, equipped with the new A-7 type Oxygen Mask, which was given a thorough test.

V-8482, A.C.

SUCCESSFUL RESULTS BY FLYING CADET BOARD

The March Field Traveling Flying Cadet Board, composed of Major Thomas W. Blackburn, A.C., president; 2nd Lieut. Frank A. Kurtz, A.C., Public Relations Officer and Recorder; Captains Ehrling L. Bergquist and Steven V. Guzak, Medical Corps, recently returned to the home base after a tour of the western States. Second Lieut. Murray A.Bywater, A.C., was advance publicity agent and coordinator for the Board.

Educational institutions visited were the University of Washington, Seattle, Wash.; University of Portland and Reed College, Portland, Ore.; Oregon State College, Corvallis, Ore.; University of Oregon, Eugene, Ore.; University of California, Berkeley, Calif.; San Francisco University, San Francisco,Calif.; Leland Stanford Jr. University, Palo Alto, Calif., and Santa Clara University and San Jose State College, Santa Clara, Calif. Since the entire tour required only forty days to complete, the length of stay at each school was limited.

The unprecedented success of the March Field Board can be gleaned from the following facts and figures: A total of 1150 candidates was interviewed, of which number 710 were examined and 308 accepted for Flying Cadet appointment. Many of these successful candidates have already received their appointment and all that remains for the balance is to await orders from Washington that they are to report for training.

---oOo---

EDUCATIONAL PROGRAM FOR ENLISTED MEN

An extensive education program, sponsored by the Barksdale Field Welfare Association, originated in February, 1940, by Colonel Lewis H. Brereton, offers unlimited opportunities to enlisted men of the Army Air Corps to complete their elementary studies and continue through a college course.

Classes in English and Mathematics are held at Barksdale Field, La., with high school teachers from local high schools employed as instructors in these courses. A survey of various organizations reveal that approximately 500 enlisted men are attending night classes.

When a soldier has satisfactorily completed his work in the elementary courses, he is prepared to qualify in the Alpha and Mathematics required by the Air Corps for entrance to technical schools. Following the first course, a student may also continue in a course of shop mathematics to prepare him for the technical training at other Air Corps schools.

A course is also contemplated in shorthand and typewriting to prepare men for clerical positions and make them available for the immense amount of clerical work necessary in the Air Corps. This course will also prove the means of assisting those already employed in this class of work to become more efficient.

Effective this fall, high school courses will be included in the program for those who have not completed their high school work, thus affording them the opportunity to receive high school diplomas.

After the soldier has successfully completed his high school course and his technical training at an Air Corps school center, he may continue his education at Centenary College. Arrangements have been made with the college authorities to offer education to soldiers during off duty hours. The cost of pursuing a course at this college is within the income of every enlisted man. Approximately 215 of the Barksdale Field personnel are taking college courses at the present time. After completing two years of college training, the soldier is qualified for Flying Cadet training at Randolph Field, Texas. This gives him, upon the completion of his flying training, a commission in the Air Corps Reserve. If he completes four years of college work, he is qualified to apply for a Regular commission in the U.S. Army Air Corps.

A class of 100 enlisted men of Barksdale Field, who took advantage of the opportunity to complete their studies at Centenary College during the past semester, will complete their examinations on May 24, 1940. These men had no other way of securing their credits for courses required of them before submitting their application for a Flying Cadet appointment.

Chaplain A.A. Katts, Barksdale Field Educational Officer, has been the leading factor in the splendid success of the educational program. Through his untiring efforts, the classes were organized and capable instructors secured.

---oOo---

Brigadier General Arnold N. Krogstad, Commanding General of the 2nd Wing, GHQ Air Force, Langley Field, Va., recently announced the appointment of Lieut. Colonel George P. Johnson, Air Corps, as Second Wing Executive Officer, succeeding Lieut. Colonel William E.Kepner, who recently left Langley Field to assume the position of Executive Officer of the Air Defense Command at Mitchel Field, N.Y. For the past five years, Col. Johnson was Air Corps Instructor at the Field Artillery School,Ft.Sill,Okla.

V-8482, A.C.

A FLIGHT TO VENEZUELA
By the Albrook Field Correspondent

Another in the series of Good Will flights to South America by the Air Corps personnel left Albrook Field on Friday morning, May 10, 1940. Colonel A.H. Gilkeson, Commanding Officer of Albrook Field, was in command of the flight. Captain Russell E. Randall, 1st Lieut. Thomas C. Darcy and 2nd Lt. Albert A. Cory were the pilots of the flight, which was made in two B-18 type Bombers.

Officers carried as passengers were Colonel W.A. Danielson and Major T.R. Howard, of the Construction Division, Quartermaster Corps, who made the flight to study housing methods of the oil companies in northern South America and the Netherlands West Indies, and Lieut. Colonel K.C. Eastham, of Quarry Heights, the official representative of the Panama Canal Department Headquarters.

The two Bombing planes took off from Albrook Field at 6:05 a.m., enroute to Maracaibo, Venezuela. The flight proceeded toward Maracaibo but met bad weather about two hours out and was forced to return to Albrook Field. The planes again took off about noon and proceeded to Maracaibo, this time finding clear weather.

The flight was met at Maracaibo by officials of the Lago Petroleum Corporation. After spending the night at the Lago camp, the flight left Saturday morning for Aruba Island, where landing was made at 10:30 a.m. Aruba is a small island, 14 miles long, in the center of the Netherlands West Indies. At Aruba, Mr. F.J. Campbell, manager of the Lago Petroleum and Transportation Corporation, met the officers and welcomed them to the site of the world's largest oil refinery.

Mr. Charles J. Colby, Manager of Industrial Relations, and Mr. J.F. Harrison, Production Manager of the refinery, made the visitors' stay a very pleasant one. They conducted a tour of inspection of the housing of the workers and entertained in a most hospitable manner.

Colonel Gilkeson paid his respects to the resident Governor of the island.

Due to internal conditions, theflight personnel obtained a first hand glimpse of the French Marines in maneuvers. A French cruiser and one destroyer were anchored at Aruba and had disembarked about 200 French Marines. The Marines had made request to the government to hold a parade, but had been refused. The two B-18's took off and flew over the two French boats. They lowered their guns, started up the engines of the airplanes on deck, and stood by saluting the Army planes.

The day before the flight landed at Aruba, the Netherlands government interned all Germans working or living on the island, and sent them to the island of Bonaire, also in the Netherlands West Indies. There they are being held prisoner.

The official visitors were taken on a tour of inspection through the island. The refinery employs about 2,000 Americans and about 5,000 persons in all. The production is on a 24-hour basis in three 8-hour shifts. The farms and houses are small but very neat and picturesque, giving air to the Dutch ancestry. The chief crop of the farms is cascara, and it is estimated that this small island produces about 80 percent of the world's cascara.

An interesting subject of study was the "mosquito fleet." These are small oil barges which run between Aruba and Maracaibo. They carry oil from the mainland to the refinery across the sand bars. Another part of the life on the island that proved interesting was the fact that all drinking water is imported from New York City. The water on the island is not usable.

The Lago Corporation has a fine program in operation for housing their employees. The barracks are similar to those used by the Army in the tropics. They are building a large, modern office building at the present time. It is constructed of glass brick. At the same time, bomb-proof shelters are being constructed for the civilians.

All is not work at Aruba. Fine deep sea fishing is found all around the tiny island. Baracuda and sail fish are plentiful and attract many sportsmen. Fine swimming pools and lighted tennis courts make life worth living. The heat of the daytime sun makes recreation during the day difficult, consequently the night sports.

The flight personnel regretted leaving the small island, but the itinerary called for speed, so reluctantly the party left Aruba,and those who had been so cordial, late Saturday afternoon.

The two Bombers went from Aruba to La Guaira, on the northern coast of Venezuela, where the party left the planes and motored 24 miles inland to Caracas. In that 24-mile ride, the rise was to 3,000 feet above sea level. The road from La Guaira to Caracas was built under the direction of the late President Gomez of Venezuela, and took 14 years to finish.

V-8482, A.C.

Captain Randall, Lieuts. Darcy and Cory were entertained at the American Embassy, while Colonel Gilkeson and Lieut. Colonel Eastham were received at the home of Major and Mrs. Burkett, Military Attache to Venezuela. Colonel Danielson and Major Howard had remained at Maracaibo to study housing conditions.

The American Embassy at Caracas is the former home of one of the sons of President Gomez, and is reportedly one of the finest mansions in South America. Gorgeous tapestries and mosaics adorn each room, and a chapel in one wing is complete even to the pipe organ. The visitors were given "all the comforts of home" and were shown the cutlying country as well as the city of Caracas.

Caracas is renowned as the most expensive city in the world in which to live. Cigarettes cost sixty cents a package for standard brands. Bread, much of which is imported from the States, costs 34 cents a loaf. There is little done in the way of agriculture. The people are even too busy to grow vegetables and foodstuffs and, consequently, even rice is imported. The sole objective of all effort and labor is oil. The old boom days of Pennsylvania and Oklahoma were recalled.

Lieut. Dennison, Assistant Military Attache, and Mrs. Dennison, very graciously took the visitors through Caracas. The mosaic streets and the square which is filled with mahogany trees were very interesting. The public square and market place also proved of interest. The pastel shades in which the buildings were all painted found a place among the curios.

The narrow, dingy streets in one part of the town were in sharp contrast to the trees in another section thereof. The trees were loaded with orchids in full bloom. Traffic is strictly controlled in Caracas. No automobile, no matter of what vintage, may blow a horn operated from the battery. The old fashioned bulb type horns are used on every car, adding the personal touch to a mechanical "get out of the way."

The party was equally reluctant to leave Caracas, but on Sunday, at 2:30 p.m., the planes left for Maracaibo from La Guaira. At Maracaibo the visitors studied the oil fields and housing of the El Barco oil concession along the lower edge of Lake Maracaibo. This is rich oil country, but is inhabited by hostile tribes of Indians. They are very troublesome and make working and maintaining the field very difficult. Several efforts to make them friendly have failed, both on the part of missionaries and oil company officials.

The personnel of the flight were entertained Sunday night by officials of the Lago Petroleum Corporation. Mr. W.M. Hall, head of industrial relations, and Mr. W.S. Link, his assistant; Mr. E.E. Peake, manager of the camp; Mr. E.T. Warren, legal advisor, and Colonel Pascuale, of the Venezuelan Army, all made the visit very enjoyable.

On Monday morning, the flight left Maracaibo for Barranquilla, Colombia. While the stay at Barranquilla was a brief one, it proved interesting in at least one instance. While the party was dining at the airport, a Royal Dutch Airliner dropped in. Immediately a chat with its crew was in order. They spoke of their desire to be in Europe to protect their families and country instead of flying commercially. They also joked about their belief that they had a superior system of beam flying to ours.

The flight left Baranquilla about 1:00 p.m. Monday and flew past the Darien country, over the San Blas islands, and to Albrook Field, where a landing was made at about 4:15 p.m.

The flight was a complete success. The objective was accomplished and, at the same time, the assignment was enjoyable.

---oOo---

INSIGNIA FOR FLIGHT SURGEONS

A suitable insignia, to be worn by Flight Surgeons while actually on duty with the Air Corps, is being sought. This insignia is to be worn on the left breast. Certain limitations are necessary: First, it is not desirable that the wings now used to denote flying ratings be used; and, second, it is not desired to use any modification of the present Medical Corps insignia. All readers of the News Letter are invited to submit designs to the Medical Division, Office of the Chief of the Air Corps, Washington, D.C.

The 82nd Observation Squadron, Moffett Field, Calif., commanded by Captain W.C. Sams, began two weeks of intensive field training on May 18th near Monterey, Cal.

Equipped with field packs, sleeping bags, arms and ammunition, the Squadron was prepared for war-time conditions.

Six O-46 Observation airplanes are to be used in the maneuvers, which will consist of aerial gunnery, observation and reconnaissance work.

REACTIONS OF A FLYING CADET

By Flying Cadet Richard M Marshall, Jr.

"They" tell of flames and splintered wood, and of twisted metal. "They" tell of wings tearing and of forced landings. The tyro tells of the solo flight and its hazards. The few of those stories that are true are highly dramatized by human imagination.

But who are "they" you ask - "they" who tell of blood and thunder? They are the men of the air. They are pilots who like to recount their greatest experiences on seconds of fright and drama. But those stories are a minute percentage of millions of flying hours, and thousands of planes and pilots.

I, too, as an American boy nearing the completion of nine months as a cadet in the Army Air Corps, have had my greatest experience.

You who need accidents, and life in jeopardy to be thrilled will not find my experience worth the reading. Those of you who think really living a sane, worthwhile life is a great experience will understand me.

It was twilight, and Friday. Another hard week behind me. It was also the last week of my three months of primary training in the Army Air Corps. Three months of a new and exhilirating experience. And now the shadows were creeping over the field that had seen my initiation into this new life. An Army training plane droned in from a test hop. A commercial transport slipped out of the last in the western sky. Then it came to me. My greatest experience!

Oh, yes, that was it! Progress, service, defense. Men of the air! What was that stanza from Tennyson's prophetic poem, Locksley Hall?

"Then I dipped into the future,
Far as human eye could see;
Saw the magic of the world,
And all the wonder that would be.
Saw the heavens filled with commerce,
Argosies of magic sails
And pilots of the purple twilight,
Dropping down with costly bales."

Yes, a poet speaking fifty years ago saw what I saw that evening. I was a part now of a highly skilled element of our modern civilization. Well paid, quartered, and fed, with a maximum of training and security. Heavens filled with commerce! That time had, indeed, come.

I was a member of the Army Air Corps! And I thought back over the early years of aviation, and its many struggles with crude equipment, and adverse public opinion as to its worth. Now I was able to take advantage of excellent instruction and highly precisioned equipment of the government. I could go into the commercial field with the confidence of a man well trained. If my country should ever need its great defenses against an invader I could intelligently defend my heritage. I was a part of the American scheme of things! And all in return for an honest effort and application in a field that boasts a safety factor far ahead of any other requiring work that has the elements of the human equation plus the normal chance expectancy of the laws of nature.

Yes, I was a part of that, and I could, in good time, plan a home and family with the knowledge and experience of this life offering me my place in the world.

The price? Good ringing blows of well directed effort and work. And I was a red-blooded American boy ready by virtue of being alive to pay that price. I thought of Kipling's poem, "If":

"If you can fill the unforgiving minute
With sixty seconds worth of distance run,
Yours is the earth and everything that's in it,
And - which is more - you'll be a man, my son!

A man! That was it. The Army Air Corps was offering me the privilege a hundred times over of being a real American man - a vital part of my country.

The sun was gone now. There was no narrow escape here. No wreckage, no scream of machinery out of control. Here was simply a western sky gone purple, a navigation book, a pipe glowing in the dusk, and the assuring knowledge that the Army Air Corps was giving me the chance to realize every man's ambition - to live with head in the clouds, but with feet on the ground.

---oOo---

Within 24 hours of the President's address to the joint session of Congress, elaborate flying cadet procurement campaign was under way at the Training Detachment, Cal-Aero Training Corporation, Glendale, Calif., with nine radio stations contributing gratis announcements daily, and the publicity facilities of Cal-Aero and Curtiss-Wright Technical Institute, contracting schools, devoting full time to the work in cooperation with Captain Kenneth P. McNaughton, Air Corps, Commanding Officer, and Lieut. Charles J. Daly, Adjutant.

---oOo---

THE MAY, 1940, FLYING CLASS

A total of 459 Flying Cadets comprised the class which began training on May 18, 1940, at the nine civilian elementary flying schools selected by the War Department to give primary flying instruction, under the Air Corps Expansion Program. Of these 459 flying students, 44 are enlisted men of the Air Corps, Regular Army, and the remaining 415 are candidates from civil life. The distribution of these students among the nine civilian schools is given below, as follows:

Alabama Institute of Aeronautics	45
Chicago School of Aeronautics	30
Dallas Aviation School and Air College	70
Cal-Aero Training Corporation	42
Lincoln Airplane and Flying School	29
Parks Air College	45
Ryan School of Aeronautics	44
Spartan School of Aeronautics	96
Allan Hancock College of Aeronautics	58
Total	459

California, more often than not credited with the highest representation of native sons among the various States in entering classes of Army Air Corps flying students, is in the lead once more with 41 students, closely followed by New York with 39. The States of Illinois and Texas follow with 35 and 33, respectively. Other states which are represented by five or more students are Oklahoma with 25; Washington, 24; Oregon, 23; Massachusetts, 21; Pennsylvania, 19; Georgia, 17; Michigan and Missouri, 15 each; Alabama, Ohio and South Carolina, 12 each; Mississippi and New Jersey, 9 each; Wisconsin, 10; Nevada, 8; Iowa, 7; Arkansas and Kansas, 6 each; Connecticut and Utah, 5 each.

Among the various cities represented by students in the new class, Chicago, Ill., leads with 15, closely followed by Seattle, Wash., with 13. Other cities represented by three or more students are Los Angeles, Calif., with 9; New York City and Corvallis, Oregon, 8 each; Brooklyn, N.Y., 7; Columbia, S.C., 6; Glendale, Calif.; Detroit, Mich.; St. Louis, Mo.; Reno, Nevada; and Portland, Oregon, 5 each; Tuscaloosa, Ala.; Atlanta, Ga.; Philadelphia, Pa.; and Dallas, Texas, 4 each; Springfield and Waltham, Mass.; Tunica, Miss.; Cleveland and Akron, Ohio; Stillwater, Okla.; Pittsburgh, Pa.; San Antonio, Texas; Salt Lake City, Utah; and Milwaukee, Wis., 3 each.

Correction: Syracuse, N.Y., is also represented by five students.

The names and residences of the students of the new class are listed on pages 10 to 13, inclusive, of this issue of the News Letter.

---oOo---

So anxious were the 45 Flying Cadets of Class 40-H to begin their military careers at the Air Corps Training Detachment, Cal-Aero Training Corporation, Glendale, Calif., that the majority of the future officer-pilots had reported nearly a week in advance of their orders.

The men were scheduled to begin flying on May 20th.

ARMY AND NAVY STANDARDIZATION CONFERENCE

A meeting of Army-Navy representatives began at Wright Field, Dayton, Ohio, on May 21st to discuss standardization of certain specifications. Those attending the conference, which lasted through Thursday, May 23rd, included the following: Lieut. Commander W.S. Parr and Lieut. C.J. Pfingstag, U.S.N., Bureau of Aeronautics; Dr. Melville F. Peters, National Bureau of Standards; A.M. Blamphin and F.E. Richardson, Aeronautical Board; F.H. Highley and M. Paulovich, Naval Aircraft Factory; and W.J. Petransky, Army-Navy Aeronautical Specification Unit, Naval Aircraft Factory.

Representatives of the Power Plant Laboratory, the Army-Navy Aeronautical Specification Branch, and the Specifications and Standards Branch represented the Materiel Division.

---oOo---

DEATH OF LIEUT. P.G. MILLER

Wright Field was shocked to learn on May 17th of the death of Lieut. P.G. Miller, of the Armament Laboratory of the Materiel Division. Apparently, Lieut. Miller died in his automobile on May 16th, but the discovery was not made until the following day. He had been on extended sick leave recently and, although he had returned to his duties, he suffered from extreme nervousness and fatigue. He had been stationed at Wright Field since June, 1938, and had seen service also at Albrook Field, Panama Canal Zone, and Langley Field, Va.

Lieut. Miller was a graduate of the U.S. Military Academy of the Class of 1931. His remains were taken to Pittsburgh, Pa., his birthplace, for burial.

The sympathy of his many associates and friends is extended to his widow.

---oOo---

WRIGHT FIELD OFFICERS FLY "SPITFIRE"

On May 15th, a group of Wright Field officers, consisting of Majors K.B. Wolfe, H.R. Yeager, Captains J.S. Mills, G.E. Price, P.E. Shanahan and Lieut. M.E. Bradley cleared for Buffalo, enroute to Ottawa, Canada, for the special purpose of trying out the British Supermarine Spitfire airplane. For comparative tests by the Canadians, an Army Pursuit plane, the Curtiss P-40, was flown to Ottawa.

The officers returned to Wright Field on May 18th. An official report of the Spitfire tests was submitted to the Chief of the Air Corps.

---oOo---

Professor D.K. Wood and 14 students of the Senior Aeronautical Engineering Class of Purdu University spent two days, May 11th and 12th, at the Materiel Division, Wright Field. This annual visit forms part of the curriculum each year of the Aeronautical Engineering Class of Pursue.

Professors of Aeronautics Alexander Klemin and Bradley Jones, of New York University and University of Cincinnati, respectively, were visitors at Wright Field on May 21st.

REHABILITATION OF PATTERSON FIELD HOSPITAL
By the Materiel Division Correspondent

On Monday, May 6th, Lieut. Colonel C. J. Baker, Flight Surgeon at Wright and Patterson Fields since 1936, left to take up his new duties as Station Surgeon and Flight Surgeon of the Second Wing at Langley Field, Va.

Even before the inauguration of the Expansion Program, in the interests of which Colonel Baker has accomplished surprising results, his service at the two fields was outstanding. In small as well as important matters pertaining to the physical well being of personnel, his physician's aid, quietly and capably administered, could be counted upon, and he leaves here a great store of regard in the hearts not only of his assistants and associates but also in those of the large military and civilian family which makes up the personnel of the two fields. His outstanding service, however, is a separate story.

The main station hospital for Wright and Patterson Fields has since the last war been located at McCook and Wright Fields, with a small emergency station at Patterson Field for the dispensing of first aid. More recent years have seen the establishment of permanent officers' quarters at Patterson Field. In addition, since the adoption of the Expansion Program, temporary barracks for enlisted men have been added, and quartered in them are between 1150 and 1250 men, of whom 1,000 belong to the Air Corps. Prior to the Expansion Program, 150 enlisted men answered the needs of both fields.

These changes have naturally thrown the weight of medical need at Patterson rather than at Wright Field, with the result that it appeared essential to have some sort of hospital immediately available. Appropriations for a suitable hospital building were not available, and, even if they had been, some sort of stop-gap for immediate use was essential. The problem was to provide a hospital of sufficient size at Patterson Field, transferring to it medical equipment from Wright Field, except that necessary for routine and first aid emergency purposes, and obtaining additional equipment with the limited funds at hand.

At Patterson Field there was an old wartime hospital building which had been erected in 1917. A few of the front rooms had been used for Patterson Field first aid and emergency cases. The remainder of the building, which had not been used for 15 years, had fallen somewhat into disrepute, floors having sunken and termites having managed their usual evil holiday. The place, however, was all that was available for hospital purposes.

Colonel Baker and his assistants looked over the old building, the estimated longevity of which at the time of erection had been five years, and saw possibilities. Floors could be braced, passageways blocked up, doors put in walls, windows enlarged, scrub and paint brushes dexterously wielded. A small budget was cautiously used for necessary additional equipment. All old furnishings not formerly white were made white but, where possible, stainless steel new furnishings were obtained, the latter neither chipping off nor corroding.

What was accomplished in a brief period of time with good will, plenty of ideas, and interested assistance on the part of all concerned, has proved no less than remarkable. Out of comparatively nothing, a clean, light, 50-bed hospital now flourishes. Besides the extensive examining rooms, to which more space is devoted than in the usual hospital because of the enormous number of routine physical examinations for officers, reserve officers, enlisted men, Air Corps cadet applicants, and others that must be conducted at this station, there are a room for light treatment and physiotherapy, dental offices, ear, nose and throat treatment room, eye examination room, pharmacy, laboratory, operating room with oxygen tent, latest operating lamp and anesthesia equipment, X-Ray room, sterilizing room, several wards - including one for isolation purposes, dining room for patients and attendants, a large modernly equipped kitchen, and supply and storage rooms where beds, stretchers, mattresses, drugs, oxygen tanks, and other supplies, large and small, are arranged in a neat array. The staff consists of seven medical officers, one dental officer, and 53 enlisted men. While the building itself is of ancient vintage, the equipment that Colonel Baker has been able to assemble is of the most modern type and, with a capable staff in attendance, there is no reason why all personnel should not receive the best of medical aid.

The maintenance of a building of this type is, of course, costly, and it is greatly hoped that a new permanent hospital will be an eventual possibility. Plans are now up for approval.

On the day of our visit the wards were partially filled, and the attendants, from cooks to doctors, seemed

(Continued on Page 15).

THE MAY, 1940, CLASS AT THE ELEMENTARY FLYING SCHOOLS

Alabama Institute of Aeronautics, Inc., Tuscaloosa, Ala.

Lanford, S.R.	Anniston, Ala.
Burleson, N.B.	Auburn, Ala.
Cunningham, J.B., Jr.	Birmingham, Ala.
Kiser, G.E.	Birmingham, Ala.
Mason, H.H.	Eclectic, Ala.
Granberry, J.M., Jr.	Montgomery, Ala.
Alexander, J.E.	Tuscaloosa, Ala.
DeBriere, S.L.	Tuscaloosa, Ala.
Hamilton, E.W.	Tuscaloosa, Ala.
Spears, W.J.	Tuscaloosa, Ala.
Jackson, E.R.	Wilson Dam, Ala.
Ellstrom, G.C.	Hartford, Conn.
Wright, T.W.	Alpharetta, Ga.
Truelove, D.V.	Athens, Ga.
Wilson, L.F., Jr.	Atlanta, Ga.
Boyle, J.F.	Springfield, Mass.
Collins, H.E., Jr.	Springfield, Mass.
Cowdery, B.W.	Needham, Mass.
Swindle, E.T., Jr.	Heathman, Miss.
Shaka, N.A.	Manchester, N.H.
Beck, H.A.	Livingston, N.J.
Blackstock, Roy	Brooklyn, N.Y.
Spen, Seymour	Brooklyn, N.Y.
Kahan, Moe	Flushing, N.Y.
Best, James F.	Hamburg, N.Y.
Kaufman, L.R.	New York, N.Y.
Connelly, M.R.	Syracuse, N.Y.
Allen, C.W.	Hemp, N.C.
Burke, J.R.	Pittsburgh, Pa.
Cappuccilli, A.A.	Warren, R.I.
Bower, R.D.	Charleston, S.C.
Willis, M.D.	Clemson, S.C.

Chicago School of Aeronautics, Glenview, Ill.

Ahlbin, Fred E.	Bridgeport, Conn.
Geddes, T.W.	Stamford, Conn.
Carroll, T.L.	W. Hartford, Conn.
Callahan, E.H.	Washington, D.C.
Hersey, E.F.	Boston, Mass.
Sweeney, D.J.	Chicopee, Mass.
Murphy, E.W.	Dorchester, Mass.
Murphy, J.F.	Dorchester, Mass.
Tabb, D.C.	Everett, Mass.
Newcombe, W.H.	Fitchburg, Mass.
Crane, V.M.	Manchester, Mass.
Gordon, Philip	Medford, Mass.
Curtis, F.M., Jr.	Milton, Mass.
Dacey, T.J., Jr.	Newton, Mass.
Schreiber, L.A.	Plymouth, Mass.
Bird, J.R.	Reading, Mass.
Rindone, F.J.	Roxbury, Mass.
Hockenberry, F.C.	Springfield, Mass.
Lawson, D.C.	Waltham, Mass.
McInnis, V.J.	Waltham, Mass.
Power, W.S.	Waltham, Mass.
Bacsik, P.T.	Trenton, N.J.
Fluharty, J.W.	Bronx, N.Y.
Bachers, G.A.	Rochester, N.Y.
LaBarge, G.F.	N. Syracuse, N.Y.
Draganjac, N.C.	Etna, Pa.
Linberg, E.F.	Morrisdale, Pa.
Ford, W.B., Jr.	Pittsburgh, Pa.
Danscreau, F.C.	Johnston, R.I.
Moskowitz, Lewis	Paterson, N.J.

Dallas Aviation School and Air College, Dallas, Texas

Mills, R.T.	Conway, Ark.
O'Brien, H.R.	Miami Springs, Fla.
Hobbs, J.W.	Milton, Fla.
Freeman, H.T., Jr.	Athens, Ga.
Lanford, H.W.	Atlanta, Ga.
O'Donnell, A.J., Jr.	Atlanta, Ga.
Hatcher, T.W.	Atlanta, Ga.
Moss, R.C.	Doerun, Ga.
Higginbotham, L.H.	Elberton, Ga.
Cole, J.M.	Ft. Benning, Ga.
West, W.G.	Manchester, Ga.
Birdsong, J.Y.	Newborn, Ga.
Fedigan, J.J.	Chicago, Ill.
Lundquist, G.E.	Chicago, Ill.
Rock, N.J., Jr.	Chicago, Ill.
Stewart, W.S.	University, La.
Calvert, L.A.	Ann Arbor, Mich.
Linebaugh, P.L.	Detroit, Mich.
Robinson, E.W.	Ferndale, Mich.
Gilmore, E.B.	Highland Park, Mich.
Kanaga, R.A.	Highland Park, Mich.
Flynn, R.L.	Tunica, Miss.
Mitchim, K.W.	Tunica, Miss.
Stapleton, J.R.	Tunica, Miss.
Chandler, L.D.	West Point, Miss.
Coen, O.H.	Thomson, Ill.
Myers, G.T., III	Summerville, Ga.
Atwater, A.S.	Boone, N.C.
Edwards, C.G.	Wilmington, N.C.
Stralser, B.J.	Detroit, Mich.
Tadlock, W.D.	Raleigh, Miss.
Clark, J.C.	Columbia, S.C.
Dendy, Julian, Jr.	Columbia, S.C.
McClellan, P.S.	Columbia, S.C.
Priester, N.E., Jr.	Columbia, S.C.
Smoak, T.A.	Columbia, S.C.
Townsend, J.C., Jr.	Columbia, S.C.
Long, L.D.	Laurens, S.C.
Watson, C.V.	Laurens, S.C.
McClure, G.D.	Chattanooga, Tenn.
Allen, W.C., Jr.	Memphis, Tenn.
Harrison, E.F.	Austin, Texas
Palmer, R.A.	Beaumont, Texas
Romere, S.A.	Beaumont, Texas
Washburn, W.R., Jr.	Cleburne, Texas
Carroll, Davy E.	Coleman, Texas
Kissinger, R.T.	College Station, Texas
Crockett, D.S.	Dallas, Texas
Duncan, R.P.	Dallas, Texas
Hoover, Robert	Dallas, Texas
Lillard, J.W.	Dallas, Texas
Shanks, R.C., Jr.	Grand Prairie, Texas
Goetzke, K.H.	Harlingen, Texas
Denson, H.T., Jr.	Houston, Texas
Doggett, E.G.	Joshua, Texas
Atkins, J.L., Jr.	Kingsville, Texas
Swenson, Edward	Manor, Texas
Stewart, L.H.	McGregor, Texas
Back, James D., Jr.	McLean, Texas
Barrick, J.F.	Odessa, Texas
Wheeler, R.H.	Pleasanton, Texas
Taylor, H.R.	Robstown, Texas
Anderson, I.G.	San Antonio, Texas
Frost, John II	San Antonio, Texas

Dallas Aviation School and Air College

Chandler, T.E.	Newberry, S.C.
Garrison, E.V.	San Antonio, Texas
Steedman, E.A.	Sherman, Texas
Garland, B.A.	Waco, Texas
Spotswood, H.C.K.	Petersburg, Va.

Cal-Aero Training Corporation, Glendale, Calif.

Fleming, T.B.	Glendale, Calif.
Gratrix, Donald	Glendale, Calif.
Tavasti, R.E.	Glendale, Calif.
Work, J.N.	Long Beach, Calif.
Boss, E.A.	Los Angeles, Calif.
Evans, W.S.	Los Angeles, Calif.
Katz, L.S.	Los Angeles, Calif.
McGarry, W.D.	Los Angeles, Calif.
McLaughlin, F.J.	Los Angeles, Calif.
Miller, P.B.	Los Angeles, Calif.
Nunnenkamp, L.	Los Angeles, Calif.
Pfeiffer, G., Jr.	Los Angeles, Calif.
Weiner, I.I.	Los Angeles, Calif.
Shea, J.H.	Riverside, Calif.
Garland, W.J.	San Pedro, Calif.
Pound, W.R., Jr.	Santa Monica, Calif.
Burman, A.H.	Fargo, N.D.
Fredrikson, G.F.	Fargo, N.D.
Theodos, G.D.	Rugby, N.D.
Jannsen, E.M.	Beaverton, Ore.
Bailey, B.R.	Corvallis, Ore.
Madison, R.M.	Corvallis, Ore.
Smyth, P.B.	Corvallis, Ore.
Hutchinson, T.D.	Kelix, Ore.
Smith, L.M.	Medford, Ore.
Goodyear, E.E.	Pendleton, Ore.
Haney, O.T.	Portland, Ore.
Murray, D.G.	Portland, Ore.
Williams, R.L.	Portland, Ore.
Bonebrake, R.R.	Roseburg, Ore.
Frantz, H.D.	Salem, Ore.
Holzapfel, J.F.	The Dalles, Ore.
Taylor, W.E.	Rapid City, S.D.
McElhoe, G.C.	Snoqualmic Falls, Wash.
Mattson, C.F.	Sumner, Wash.
Campbell, F.D.	Tacoma, Wash.

Lincoln Airplane and Flying School, Lincoln, Nebraska

Moore, Wilson	Conway, Ark.
Latourette, H. H.	Jonesboro, Ark.
Avery, A.J., Jr.	Arlington Heights, Ill.
Colburn, I. T.	Chicago, Ill.
Jones, Emrys A.	Chicago, Ill.
Valorz, E.H.	Chicago, Ill.
McHaffie, Maurice	Danville, Ind.
Cassell, F.C.	Indianapolis, Ind.
Morris, J.J.	Oaklandon , Ind.
Knight, J.W.	Camp Beauregard, La.
Schindler, J.D., Jr.	Sturgeon, Miss.
Reissaus, C.A.	Cape Girardeau , Mo.
Downing, H.L.	Chilhowee, Mo.
McAtee, Gerald P.	Clayton, Mo.
Santoro, A.L.	Kansas City, Mo.
Phillips, C.E.	St. Louis, Mo.
Underwood, G.W., Jr.	St. Louis, Mo.
Wiss, H.W.P.	St. Louis, Mo.
Ward, C.C.	Rolla, Mo.
Specht, F.J.	White Plains, N.Y.
Sather, Harley	Ryder, N.D.
Davis, Howard A.	Akron, Ohio
Ackerman, H.M.	Cleveland, Ohio
Levine, Robert	Columbus, Ohio
Newbauer, J.A.	Columbus, Ohio
Steele, D.C.	Akron, Ohio
Raudebaugh, T.C.	Dayton, Ohio
Scott, Ray L.	Elk Point, S.D.

Parks Air College, East St. Louis, Ill.

Berryman, W.C.	Washington, D.C.
Handy, W.J.	Springfield, Mass.
Bell, J.H.	Camden, N.J.
Baur, Sol.	Hillside, N.J.
Finnie, T.W.	New Brunswick, N.J.
Phillips, Michael	New Brunswick, N.J.
Valko, J.R., Jr.	Passaic, N.J.
Kutch, Fred	Astoria, L.I., N.Y.
Berkowitz, H.N.	Brooklyn, N.Y.
Galler, Jack	Brooklyn, N.Y.
Levy, C.E.	Brooklyn, N.Y.
Pullman, Irving	Brooklyn, N.Y.
Rothstein, George	Brooklyn, N.Y.
Krail, A.W., Jr.	Elmhurst, L.I., N.Y.
Whitely, W.C., Jr.	Glen Cove, N.Y.
Gottlieb, A.A.	Jackson Heights, N.Y.
Angiolini, Aldo	Long Island City, N.Y.
Malone, B.G.	Nanhasset, L.I., N.Y.
Langbein, J.D.	Mount Vernon, N.Y.
Boselli, T.J.	New York, N.Y.
Dale, J.D.	New York, N.Y.
Pettit, Ronald S.	New York, N.Y.
Schwartz, Wm.	New York, N.Y.
Smith, C.A., Jr.	New York, N.Y.
Mead, Bruce S., Jr.	Roxbury, N.Y.
Krieger, A.E., Jr.	Salamanca, N.Y.
Ansley, F.A.	Syracuse, N.Y.
Garrett, P.C.	Syracuse, N.Y.
Hartbrodt, F.A.V.	Woodside, N.Y.
Andes, I.F.	Akron, Ohio
Griffith, J.G.	Cincinnati, Ohio
Brickner, L.G.	Cleveland, Ohio
Hamilton, H.G.	Toledo, Ohio
Morrow, L.M.	Aliquippa, Pa.
Johnston, L.K.	Clairton, Pa.
Dittmann, E.E., Jr.	Philadelphia, Pa.
Sharp, A.H.	Philadelphia, Pa.
Trearse, Albert	Philadelphia, Pa.
Woltemate, R.C.	Philadelphia, Pa.
Schroth, F.D.	Scranton, Pa.
Kruzel, J.J.	Wilkes Barre, Pa.
Popham, W.L., Jr.	Wilkes Barre, Pa.
Loehrke, J.E.	Milwaukee, Wisc.
Mueller, E.H.	Milwaukee, Wisc.
Marcan, D.J.	Milwaukee, Wisc.

Ryan School of Aeronautics, Ltd., San Diego, Calif.

Clark, J.L.	Phoenix, Ariz.
Merrill, K.N.	Safford, Ariz.
Huffman, Orland G.	El Cajon, Calif.
Musij, Wm., Jr.	Los Angeles, Calif.
Hayes, J.W., Jr.	San Diego, Calif.
Redington, W. M.	Denver, Colo.
Walthere, G.A.	Denver, Colo.
Ball, A.D.	Moscow, Idaho
Parsons, Wm. A.	Ely, Nevada
Cobeago, M.A.	Reno, Nevada
Etchemondy, J.M.	Reno, Nevada
Kinkel, D.E.	Reno, Nevada

Ryan School of Aeronautics, Ltd. (Cont'd)

Tranter, J.C.	Reno, Nevada
Wikstrom, F.E.	Reno, Nevada
Mornston, H.E.	Sparks, Nevada
Powers, W.W.	Sparks, Nevada
Ortega, J.A.	Albuquerque, N.M.
Shaefer, R.R.	Albuquerque, N.M.
Homra, J.A.	Portales, N.M.
Ingenhutt, W.W.	Corvallis, Ore.
Patton, C.P.	Corvallis, Ore.
Benson, N.S.	McMinnville, Ore.
Felton, G.B.	Portland, Ore.
MacPherson, J.G.	Portland, Ore.
Williamson, J.A.	Brownwood, Texas
Cherry, R. W.	Houston, Texas
Wahlstrom, N.O.	Laketown, Utah
Christensen, H.R.	Salt Lake City, Utah
McGhie, R.D., Jr.	Salt Lake City, Utah
Peterson, Ray	Salt Lake City, Utah
Hatch, H.E.	Woods Cross, Utah
Brooks, H.W.	Seattle, Wash.
Cowan, J.H.	Seattle, Wash.
Cox, J.W., Jr.	Seattle, Wash.
Graham, George A., Jr.	Seattle, Wash.
Johnson, R.S.	Seattle, Wash.
Ludwig, R.H.	Seattle, Wash.
Moore, A. K.	Seattle, Wash.
Shore, M.B.	Seattle, Wash.
Stevenson, H.L.	Seattle, Wash.
Storkan, D.K.	Seattle, Wash.
Voellmeck, J.W., Jr.	Seattle, Wash.
Wormser, V.J.	Seattle, Wash.
Edris, G.L.	Tacoma, Wash.

Spartan School of Aeronautics, Tulsa, Okla.

Pierce, J.R., Jr.	Ashdown, Ark.
Phillips, J., Jr.	Jasper, Ark.
Criner, D.W.	Searcy, Ark.
Clinkscales, R.S.	Atlanta, Ga.
Millar, J.R., Jr.	Hapesville, Ga.
Smith, W.A., Jr.	Savannah, Ga.
Steib, Steven F.	Aurora, Ill.
Vacek, Fred J., Jr.	Berwyn, Ill.
Plourd, W.W.	Brookfield, Ill.
Brock, R.C.	Chicago, Ill.
Friedman, M. N.	Chicago, Ill.
Jarman, J.T.	Chicago, Ill.
Malloy, M.D.	Chicago, Ill.
Monaco, John, Jr.	Chicago, Ill.
Morgan, Howard W.	Chicago, Ill.
Rogers, W.C.	Chicago, Ill.
Waskowitz, F.T.	Chicago, Ill.
Olason, J.S.	Woodbridge, Conn.
Benes, C.G.	Cicero, Ill.
Gravenhorst, E.H.	Effingham, Ill.
Albanese, F.T.	Evanston, Ill.
Kinsley, R.R.	Evanston, Ill.
Stites, J.O.	Franklin Park, Ill.
Weaver, J.H.	Freeport, Ill.
Fenoli, J.R.	Mount Vernon, Ill.
Winemiller, P.P.	Naperville, Ill.
Stephens, R.G.	Oak Park, Ill.
Thompson, D.M.	Oak Park, Ill.
Pixley, J.E.	Ottawa, Ill.
Schinz, A. W.	Ottawa, Ill.
Marr, L.F., Jr.	Detroit, Mich.
Stevens, C.J.	Detroit, Mich.
Waite, A.E.	Detroit, Mich.
Valusek, John, Jr.	Flint, Mich.
Chapel, R.H.	Jackson, Mich.
Lane, G.V., Jr.	Selfridge, Mich.
Porter, J. W.	St. Louis, Mo.
Schramm, H.F.	St. Louis, Mo.
Burke, P.M.	East Cleveland, Ohio
Reese, W.G., Jr.	Grafton, Ohio
Rea, Amadeo	New York, N.Y.
Smith, Robert E.	Fairhaven, N.Y.
Mesita, J.V.	Syracuse, N.Y.
Perna, A.J.	Mineola, N.Y.
Welsh, R.J.J.	Ottawa, Ill.
Hoover, W.H.	Altus, Okla.
Brown, E.D.	Apache, Okla.
Obert, D.L.	Apache, Okla.
Stockett, M.W.	Bethany, Okla.
Smith, Robert E.	Cooperton, Okla.
Browers, C.E.	Cromwell, Okla.
Albright, Clay	El Reno, Okla.
Thompson, F.R.	El Reno, Okla.
Burke, A. M.	Grandfield, Okla.
Stanton, C.L.	Jenks, Okla.
Rice, Lewis D.	Frederick, Okla.
Culbertson, Kline O.	Kingfisher, Okla.
Kelley, W.J.	Lexington, Okla.
Burch, M.J.	Marietta, Okla.
Ballard, Carl V.	Norman, Okla.
Miner, J.W., Jr.	Oklahoma City, Okla.
Hays, N.F.	Stillwater, Okla.
Lackey, J.W.	Stillwater, Okla.
Levee, D.B.	Stillwater, Okla.
Walker, F.L.	Stringtown, Okla.
Bowlin, P.F.	Tulsa, Okla.
Nettles, J.E.	Wagoner, Okla.
Shero, A.R.	Wilburton, Okla.
Moslener, L.G., Jr.	Monaca, Pa.
Clark, C.H.	Pittsburgh, Pa.
Bedle, R.L., Jr.	Charleston, S.C.
Davis, D.W., Jr.	Madison, Wisc.
Friske, N.E.	Greenwood, Wisc.
Turk, Joseph	Platteville, Wisc.
Cross, C.H.	South Range, Wisc.
Larson, C.W.	Wonewoc, Wisc.
Ellis, A. J.	Hampton, Va.
Davis, Wm. O.	Bronx, N.Y.

Allan Hancock College of Aeronautics, Santa Maria, Calif.

Long, R.N.	Burbank, Calif.
Long, R.M.	Burbank, Calif.
Puerta, F.J., Jr.	Berkeley, Calif.
Ireland, F.R.	Casmalia, Calif.
Martens, R.C.	Claremont, Calif.
LaChasse, A.W.	Glendale, Calif.
Blanton, N.H.	Mar Vista, Calif.
Dempster, K.C.	Oakland, Calif.
Catton, J.J.	Pacific Palisades, Calif.
Webb, R.	Petaluma, Calif.
Conradi, A., Jr.	Piedmont, Calif.
Martensen, J.K.	Pomona, Calif.
Haas, C.R.	Redwood City, Calif.
Hayes, J.F.	Sacramento, Calif.
Luque, J.A.	San Leandro, Calif.
Salisbury, C.F.	Santa Ana, Calif.
Whidden, J.D.	Van Nuys, Calif.
Witherspoon, W.L.	Nampa, Idaho
Vifquain, R.M.	Ames, Iowa
Irwin, R.B.	Estherville, Iowa
Krebs, L.F.	Fonda, Iowa
McDonald, E.A.	Iowa City, Iowa
Strait, Matthew D.	Milton, Iowa
Allard, C.A.	Arkansas City, Kans.

Allan Hancock College of Aeronautics (Cont'd).

Burton, J.C.	Arkansas City, Kans.
Dusenbury, J.A.	Anthony, Kans.
Anderson, J.P.	Hutchinson, Kans.
McCowan, M.S.	Leoti, Kans.
Vargas, M.J.	Gustine, Calif.
Hanson, B.E.	Baudette, Minn.
Messenger, L.C.	Minneapolis, Minn.
Halbert, H.T.	St. Paul, Minn.
Williams, J.H.	Cape Girardeau, Mo.
Alexander, R.B.	Fayette, Mo.
Lutz, J.F.	Fulton, Mo.
Murphy, R.E.	St. Louis, Mo.
Gordon, M.K., Jr.	Bozeman, Mont.
Stastny, L.R.	Lincoln, Nebr.
Arnoldus, R.T.	Corvallis, Ore.
Busch, K.N.	Corvallis, Ore.
Rawls, J.A., Jr.	Corvallis, Ore.
Parsons, L.F.	Multnomah, Ore.
Robinson, R.W.	Corvallis, Ore.
Hale, Z.I.	Abilene, Texas
Wagner, F.S.	Fort Worth, Texas
Carey, P.S.	Cheney, Wash.
Swannack, G.E., Jr.	Ephrata, Wash.
Tempest, L.T.	Opportunity, Wash.
Peaslee, J.C.	Seattle, Wash.
Foster, R.T.	Spokane, Wash.
Potter, R.A.	Spokane, Wash.
Robins, Donald D.	Woodland, Wash.
Moeller, B.A., Jr.	Honolulu, T.H.

NOTE: All of the above listed students were appointed Flying Cadets from civil life.

FLYING CADETS - ENLISTED MEN

Alabama Institute of Aeronautics, Inc.

Turner, Ernest Albrook Field, Canal Zone	Florala, Ala.
Kimsey, W.L. Mitchel Field, N.Y.	Denver, Colo.
Whiddon, David T. Maxwell Field, Ala.	Sneads, Fla.
Cannon, Hubert R. Maxwell Field, Ala.	Americus, Ga.
Gilbert, Roy Maxwell Field, Ala.	Fort Myers, Fla.
Seitzinger, Bernard K. Fort Benjamin Harrison, Ind.	Brighton, Iowa
Baker, H.B. France Field, Canal Zone	Cinda, Ky.
Watkins, J.D. Barksdale Field, La.	Jackson, Miss.
Aaron, Wm. D. Maxwell Field, Ala.	Moorhead, Miss.
Guerra, S.R. Mitchel Field, N.Y.	Maywood, N.J.
McCool, Delbert E. Mitchel Field, N.Y.	Tidioute, Pa.
Davidson, E.I. Mitchel Field, N.Y.	Towanda, Pa.
Duganne, J.A. Barksdale Field, La.	Altoona, Wisc.

Dallas Aviation School and Air College

Garcia, Raul Randolph Field, Texas	Brownsville, Texas

Cal-Aero Training Corporation

Harris, Richard C. A.C. Detachment, Glendale, Calif.	Glendale, Calif.
Allen, Barnett S. Hamilton Field, Calif.	Grace, Idaho
Hoss, Jerome H. Hamilton Field, Calif.	Ness City, Kans.
Thompson, Berry P. Moffett Field, Calif.	Judith Gap, Mont.
Moore, Henry C., Jr. Moffett Field, Calif.	Spokane, Wash.
Cobb, M.B.	Camp Ord, Calif.

Lincoln Airplane and Flying School

Brereton, J.R. Chanute Field, Ill.	Emmetsburg, Iowa

Spartan School of Aeronautics

Owuk, Charles J., Jr. Scott Field, Ill.	Chicago, Ill.
Yengst, Craig M. Chanute Field, Ill.	Galesburg, Ill.
Morehead, James R. Chanute Field, Ill.	Moccasin, Ill.
Vose, Marshall T. Langley Field, Va.	Farmington, Me.
McDuffee, Paul G. Selfridge Field, Mich.	Grand Rapids, Mich.
Richmond, Manley O. Scott Field, Ill.	Marshall, Mich.
Neal, Robert W. Selfridge Field, Mich.	Muskegon, Mich.
Lutes, Lyman C. Fort Sill, Okla.	Edinburg, Ind.
Howenstein, Wm. N. Chanute Field, Ill.	Jackson, Nebr.
Hover, Robert E. Scott Field, Ill.	New York, N.Y.
Smith, Robert H. Selfridge Field, Mich.	Cooperton, Okla.
Jones, John E. Fort Sill, Okla.	Lawton, Okla.
Osak, Andrew Scott Field, Ill.	Duquesne, Pa.
Barrons, William T. Langley Field, Va.	E. Mauch Chunk, Pa.
Olson, Clifford B. Chanute Field, Ill.	White River, S.D.
Keever, James E., Jr. Langley Field, Va.	Ennis, Texas
Winburn, Thomas H. Langley Field, Va.	Rockport, Texas
Gregg, Harry W. Selfridge Field, Mich.	Carrollville, Wisc.

Allan Hancock College of Aeronautics

Jones, Richard V. Moffett Field, Calif.	Cottonwood, Calif.
Piker, Preston March Field, Calif.	Santa Ana, Calif.
Henggeler, Francis J. Hickam Field, T.H.	Clyde, Mo.
Van Haur, James P. Hamilton Field, Calif.	Missoula, Mont.
Sharp, Frank A. Wheeler Field, T.H.	Hamburg, N.Y.

REOPENING OF ARMY AERONAUTICAL MUSEUM

By the Materiel Division Correspondent

The Army Aeronautical Museum, Wright Field, Ohio, which at the inauguration of the Expansion Program was closed in order that all energies might be bent to that single aim, was recently opened to the general public. The reopening was announced by Colonel Oliver P. Echols, Assistant Chief of the Materiel Division, in response to a growing number of requests from local civilian organizations and based upon the fact that because of its location visitors could be directed to the Museum and returned to the gate without in any way interfering with the work of the laboratories. Hours were arranged with this special aim in view.

The Museum will be open during the week from Monday to Friday, inclusive, from 9:00 a.m. to 2:30 p.m., and on Saturday from 9:00 a.m. until 11:00 a.m. It will be closed on Saturday afternoons, Sundays and holidays.

From January 1, 1939, until September 18, 1939, the closing day, 79,282 visitors checked in at the Museum. They came from all over the United States. From these figures some idea may be obtained of the public appeal contained in the Air Corps exhibits. The months during which visitors have not been admitted have not been idle for the Museum curator and his assistants. Several new exhibits have been added, among them notably a Bleriot airplane.

The collection of engines, which is most complete, shows types ranging from those used by the Wright Brothers up to and including modern models. These had not heretofore formed part of the Museum displays. They have now been cleaned, repaired and labeled. Some have been sectionalized for study, and some converted into working models. Together they form an outstanding demonstration of the development of the gasoline power plant as adapted to aircraft uses.

---oOo---

The 16th Pursuit Group, as a component of Albrook Field, recently underwent the annual inspection of the Commanding General of the Panama Canal Department, Major General Van Voorhis, who with his entire staff, accompanied by a group of visiting officers from Costa Rica, occupied the reviewing stand, while the entire personnel of Albrook Field passed in ground and aerial review. All organizations, departments and activities were subsequently inspected. Apparently all outfits were in good condition, with the 44th Recon. Sqdn., attached to the Group, receiving special commendation.

LAUNCHING OF AIR CORPS RESCUE BOATS

Within the past several weeks, three of five rescue boats constructed for the Air Corps have been launched. These boats, which will be used for rescue purposes in case of forced landings of aircraft in the water, have a total length of 72 feet, with a beam of 15 feet, draft 3½ feet, and displacement of 32 tons. The power plant comprises two Hall Scott marine engines developing 575 horsepower, each driving two screws, with provision made for a third engine and a screw if additional power and speed are required. Approximately one thousand gallons of gasoline are carried, a supply deemed sufficient for 25 or 26 hours' run at a cruising speed of 18 miles per hour.

These boats are capable of a top speed in excess of 30 miles per hour. Equipped with radio receiving and transmitting sets, ship to ship, ship to shore and ship to airplane communication will be possible. Each boat is also equipped with remote controls that permit the captain to control the engines from the bridge.

Available in the aft part of the boat are dispensary facilities for rendering first aid to injured personnel. Other accessories include life saving equipment, a shoulder line throwing gun, acetylene cutting torches, extinguishers, etc. Provision is also made for a "bridle" hitch for use in towing disabled aircraft. Each boat is also equipped with searchlights and other standard ship accessories. The construction of the hull follows closely standard Coast Guard practice, and by extending the engine bed bearers as far forward as possible, additional strength is gained. The engine room is protected by steel bulkheads and is equipped with fire extinguishers. A Cape Cod dory is placed on the deck.

Four men comprise the crew of the rescue boat, consisting of the captain, engineer and two deckhands. The cabin of the boat is streamlined to cut down wind resistance.

The Air Corps fields to which one of these rescue boats will be assigned are Langley Field, Va.; Borinquen Field, Puerto Rico; MacDill Field, Tampa, Fla.; France and Albrook Fields, Panama Canal Zone.

The first one of these rescue boats was launched on May 4th, the ceremony taking place at the docks of the Greenport Basin and Construction Co., Long Island, N.Y. Mrs. Douglas B. Netherwood, wife of the Commanding Officer of Mitchel Field, N.Y. (Colonel Netherwood), was the sponsor, and the boat was named the "Major General William L.

Kenly," who died on January 11, 1928.

General Kenly, during the World War, served as Chief Aviation Officer of the American Expeditionary Forces in France for a period of approximately six months, in the course of which he completed the skeleton organization of the American Aviation Service in France. Returning to the United States, he was assigned to duty as Director of Military Aeronautics. He was retired from the military service on October 31, 1919.

The second rescue boat, christened the "Major General Charles T. Menoher," was launched on May 18, 1940, Mrs. Cole, wife of Lieut. Colonel Ross F. Cole, of Mitchel Field, N.Y., acting as sponsor.

General Menoher, who commanded the 42nd (Rainbow) Division in France during the World War, succeeded General Kenly as the head of the Army aviation service. He served as Director of Air Service in Washington from December 23, 1918, to October 4, 1921, following which he was assigned as Commanding General of the 9th Corps Area. He died in Washington, D.C., August 12, 1930.

The third rescue boat, named in memory of Brigadier General William Mitchell, was launched on June 1, 1940, the wife of Lieut. Colonel Richard H. Ballard, Air Corps, of Mitchel Field, N.Y., acting as sponsor.

General Mitchell was a noted war-time pilot, whose military career is probably familiar to all those who have followed the progress of military aviation in America. While overseas with the American Expeditionary Forces, he held a number of very responsible positions, and for displaying bravery and performing exceptional service as a pilot over the battle lines he was decorated with the Distinguished Service Cross. He served as Assistant to the Chief of the Army Air Service in Washington for a period of about four years, and resigned from the service on February 1, 1926. He died on February 19, 1936.

---oOo---

Wright Field, Dayton, Ohio, was honored on Monday, May 6th, by a brief visit from the Secretary of the Treasury, the Hon. Henry Morgenthau, Jr., who was returning to Washington from a trip to the West. General George H. Brett, Chief of the Materiel Division, met Mr. Morgenthau at Indianapolis, Ind., and accompanied him to Wright Field. After a brief conference, Mr. Morgenthau continued his journey.

---oOo---

RESIGNATION OF MR. KNISLEY

Mr. A. Ward Knisley, who has been associated with the Armament and Equipment Laboratories of the Air Corps Materiel Division, Wright Field, Ohio, since 1929, resigned to accept a position with the Barnard Aviation Equipment Company, Inc., of Newark, N.J., as sales engineer. He reported for his new position on May 13th.

As Assistant Mechanical Engineer, Mr. Knisley has been active in the development of aircraft armament equipment and navigation equipment, and has had an active part in aiding in the preparation of many of the famous flights of the past ten years undertaken by both Army and civilian pilots. In these preparations he has been particularly successful in plotting flight courses over extended areas and advising the types of navigation equipment to be used under particular conditions.

In such preflight work he assisted in Jimmy Mattern's Round-the-World Flight, the Army Alaskan Flight, Wiley Post's high altitude tests, Major Hegenberger's and Chester Snow's navigation tests, in extended radio compass tests, and in navigation equipment tests over the Gulf of Mexico. In many of these latter tests, Knisley was navigator on the flights.

Mr. Knisley spent his early youth and his schooling in Charleston, S.C. He graduated from Drexel Institute, Philadelphia, Pa., in 1917, and from the U.S. Naval Academy at Annapolis in 1920. He spent four years at sea as a Naval officer and later resigned from the Navy to take a commercial position. The company with which Mr. Knisley has become affiliated manufactures aircraft pulleys and armament equipment. His Wright Field associates wish him the best of luck.

---oOo---

ENTHUSIASM FOR CORRESPONDENCE COURSE

The 21st Pursuit Squadron, 35th Pursuit Group, Moffett Field, Calif., turned out almost 100% in favor of the newly initiated Air Corps Correspondence School. Ninety out of 108 men present for duty expressed a desire to enroll for these correspondence courses. If the success of this school is in proportion to the enthusiasm voiced by the men, it should go far toward improving the efficiency of the Air Corps. Says the News Letter Correspondent: "We wish to be quoted as saying, 'We're one hundred percent in favor of this movement.'"

AIR CORPS ACTIVITIES IN PANAMA

France Field

6th Bombardment Group: Starting in May, ground training became of major importance for the junior officers at this field. Due to the recent examinations for Regular commissions, the youngofficers were given plenty of opportunity to study, and ground training was somewhat curtailed. There is a different story now, however.

The 25th Bombardment Squadron has been holding courses on armament, under the tutelage of Lieut. Herblin, new Armament Officer, Class 39-D. Every phase was explored, not only theoretically but practically as well. Such details as stripping automatic pistols and machine guns and the actual firing of all types of flares and the delicate business of fusing bombs, made indelicate by using dummy fuses, were made a part of everyday conferences and practical study.

The Communications Section, guided by Lieut. Thomas R. Ford, becomes more and more interesting to the insatiable dit-dah boys, as Lieut. Ford points out the finer details of radio procedure in everything from International Morse to Q sigs.

Training on the bomb sights by both the 3rd and 25th Bombardment Squadrons also made up an important part of the training, with periodic flights in the familiar "Jeep," which has flown thousands of miles and never moved yet - the Link Trainer.

Captain Guy F. Hix has his 7th Reconnaissance Squadron at Rio Hato, where bombing practice has been conducted for the past three weeks at that popular resort, made so by the increasing demand for open spaces for the boys who want to try their hand at dropping things.

3rd Bombardment Squadron: In the past few months, France Field has more than doubled the enlisted personnel. Each squadron on the field has received more and more men, most of them new recruits. New temporary quarters have been constructed on the east side of the Randolph Road.

The Squadron received 32 new recruits during April. These men, with the exception of four who were placed in quarantine because of measles contracted while enroute to the Canal Zone, are being put through recruit drill. All of the new men are probably saying that they joined the Air Corps, but it looks as if they were in the Infantry. Every morning all of them are to be found on the parade ground drilling in the fundamentals of the Army's Streamline Drill.

39th Observation Squadron: May 3rd was moving day for the 39th, the second such event in the three months which have elapsed since the Squadron's activation. For several weeks, the Squadron has been occupying a section of the large barracks assigned to the 6th Bombardment Group and has been functioning as a sort of service or auxiliary unit for the Group. Now, however, the Squadron is about ready to begin operations as a separate tactical unit of the 19th Wing, and the move into separate barracks was the first step in that direction.

The new quarters should be an improvement over the old ones, since they are of permanent construction and are better equipped as to bathing facilities, etc. They are also more centrally located on the post, being but a few steps from the Post Exchange, the Theater and the new Post Office.

Group Mess Hall: The new Group mess hall, or consolidated mess, for the 6th Bombardment Group is finally nearing completion. Slowly, but surely, all the details that tend to the upkeep of a mess hall, such as griddles, coffee urns and a storage room have been done away with, and by May 20th the men of the Group were scheduled to have a mess hall that they can call their own. The 7th Reconnaissance Squadron, attached to the Group for tactical training, will also share this modern up-to-date mess.

The mess hall is ultra-modern, with a cafeteria style of serving food, and very comfortably seats about 400 men. By ringing the chow bell twice for each meal, the men of the Group will have no more troubles or confusion in satisfying their hunger urge.

Above the mess hall is a spacious day room where Group men may spent their leisure hours. It is equipped with pool tables, ping-pong tables and other indoor pastimes. The reading room, which will be completed in a short time, will be equipped with the latest magazines and newspapers from every possible source.

Albrook Field

The 37th Pursuit Group (Int.) activated on February 1, 1940, and assigned to Albrook Field, comprised Hqrs. and Hqrs. Squadron, 28th, 30th and 31st Pursuit Squadrons. The 74th Bombardment Squadron (M) was attached to the 37th at the time.

At the inception of the new Group, the officer personnel included Captain Russell E. Randall, Group Commander; 1st Lieut. Morley F. Slaght, Operations and Intelligence Officer and Commanding the Hqrs. and Hqrs. Squadron; 2nd Lieuts Albert A. Cory, Adjutant; John W. Weltman, Materiel Officer; 1st Lieuts. Robert D. Gapen, Carl T. Goldenberg and

John R. Kelly, commanding the 28th, 30th and 31st Pursuit Squadrons, respectively.

Since inception, the Group has been functioning and obtaining commendable results, considering the skeleton organization, particularly in regard to officer personnel. A few of the salient highlights in the history of the Group are: trips to San Jose, Costa Rica, participating in a 19th Wing mission; cooperative low target missions with the Coast Artillery; missions of practice defense, using simulated ground interception net; frequent flights to Jaque, the Perlas Islands, Point Pinas in cooperation with the Engineer Corps, and various objectives such as transporting doctors to administer medical aid to natives; flights to Port Armuelles where, as guests of the United Fruit Company, the pilots found new friends and learned first hand regarding the immense, complicated and extensive operations of that Company. All of these duties were accomplished in addition to the regular schedule of tactical flying and the duties and problems attendant to the organization and proper administration of a new Group.

Shifting personnel has not simplified the problems. It has resulted in the following replacements and an even greater need for officers. Lieut. Slaght, relieved from assignment and assigned to the 15th Air Base Squadron, was replaced by 1st Lieut. John H. Jeffus. Second Lieuts. Burton E. Schwind, Leon W. Gray and Robert B. Mueller were relieved from active duty; 2nd Lieut. John K Hester was assigned to the Group on April 29th and to the 30th Squadron. During May, 1st Lieuts. Robert D. Gapen, John R. Kelly and Carl T. Goldenberg were scheduled to return to the United States.

Proud of its history, the 37th Group looks forward with ambitious anticipation to the future. Time will justify that pride and indelibly record the achievements of the organization.

Other officers serving with the Group in various positions include 2nd Lieuts. Kyle L. Riddle and John B. Henry, Jr., 31st Squadron; Marshall P. Camp and McDonald H. Hays, 28th Squadron; J.C. Smith, 30th Squadron.

Pilots at Albrook Field are called upon for lots of things, latest of which being a mission to rescue three lost fishermen who were last reported in the vicinity of Pinas Point, some 125 miles southeast of this station. Two OA-8's and one OA-9 were used in the search. The OA-8's were piloted by Major Arthur L. Bump and Captain R.E. Randall, with 2nd Lieut. Albert A. Cory and Captain Roger J. Browne as co-pilots. First Lieut. John R. Kelly piloted the OA-9, with 2nd Lieut. N.B. Hays as co-pilot. It was learned later that the missing boat was picked up with its crew by a Chilean freighter and returned to Balboa Docks.

Three officers of the Eucadorean Army, who were visiting on the Isthmus for several days, were returned to Guayaquil on May 11th, via U.S. Army B-18. First Lieut. Richard T. King, commanding the 74th Bombardment Squadron (M), was navigator on the flight, and Major Sweeley and Captain Munroe, both of France Field, were pilot and co-pilot, respectively. The visiting officers were Major L. Hidlago and Captains B. Tobar and C. Garcia.

Probably the fastest growing community in Central America is the Air Corps Gunnery Camp at Rio Hato. The post was formally opened on September 1, 1939, and has grown steadily. First Lieut. Jack M. Malone, Commanding Officer of Rio Hato, is in charge of the construction program, which has progressed remarkably well. The men are now housed in three barracks and have a consolidated mess to handle the rapidly increasing personnel.

Captain Clifford P. Michael is in charge of the Medical Detachment, which is housed in a newly constructed dispensary. There is one radio house on the post which handles communications. The needs and personal wants of the post are handled by two Post Exchanges. Water for the entire area is furnished by a 20,000-gallon water tower, which was also installed by the enlisted personnel.

The landing field was cleared by the enlisted men, who worked for weeks with hand tools and tractors. The men dug approximately ten miles of ditches to house water mains and electrical cables. The work of constructing the buildings and landscaping was all performed by Air Corps man power, but has been under the supervision of the Corps of Engineers.

There is little time for recreation, and the men have worked so hard that they thought little of recreation anyway. They have one of the finest beaches in the world at their disposal, however. The Rio Hato sand beach is famous the world over and runs for five miles without a blotch. There is a Post Theater which runs first-run shows nightly, and which seats about 300 people. On week-ends, the men find time to fish in one of the most fertile waters of Central America. The day is coming when Rio Hato will be one of the most beautiful posts in Panama.

V-8482, A.C.

MORE PILOTS-TO-BE START BASIC TRAINING

Class 40-F, the sixth class of Flying Cadets under the Air Corps Expansion Program, reported to Randolph Field on May 15-16 for the second of the three 12-week phases of flight instruction that will transform them into military airplane pilots in less than a year.

The days when a 150-man primary class reported for duty, spent ten days or two weeks becoming acclimated before reporting to the flying line for training, are no more.

Long before 40-F appeared over the Randolph Field horizon, plans were being laid for handling the 254 men. Instructions had been sent to each of the nine civilian flying schools. "Your class of Flying Cadets should report to the Cadet Administration Building, Randolph Field, at 8:00 a.m., May 15," one school was told. "Your men report at 10:00 a.m. on May 15," another was told. In all, the nine schools were spread over a two-day period.

As each group arrived, they were immediately formed into squads of 11 men each. "Squad 16 goes to the barber shop for a hair cut, Squad 20 to the supply room for the initial issue of clothing, squad 7 to the special photographic room set up in the basement, where identification pictures of each men are made."

A "Master Coordinator," in direct charge of all squads, stations himself on the steps of the Cadet Administration Building and directs each squad to the next processing location. Each squad is in charge of an upper classman, himself an "old timer" of six weeks.

In less than 48 hours, each of the 254 men have drawn clothing, athletic equipment, been measured for tailor made trousers, received their first real taste of the new close order drill, drawn flying togs and are ready for the flying line. The present class of new Flying Cadets, 40-F, reported on Wednesday and Thursday, had all day Friday to become acclimated, and reported for their first look at a BT-9 on Saturday morning.

---oOo---

The 95th Bombardment Squadron, along with other members of the 17th Group, are under orders to leave for their new stations at McChord Field, near Tacoma, Wash., on June 15, 1940, and by that time expect to have finished all training schedules and to have become a full-fledged Bombardment unit.

The 17th Bombardment Group is now stationed at March Field, Calif.

CHIEF OF AIR CORPS VISITS ALBROOK FIELD

By the News Letter Correspondent

Major General Henry H. Arnold, Chief of the Air Corps, expressed complete satisfaction with the development of local Air Corps units and with the entire Air Corps organization before leaving Albrook Field, May 9th, after a two-day visit.

General Arnold arrived at the Field on Tuesday, May 7th, at 7:20 p.m., in a Douglas C-41 Transport, and spent most of his brief stay on the Isthmus inspecting the status of Air Corps housing and other Air Corps developments. He was accompanied on the trip by Col. B.N. Grant, Majors B.W. Chidlaw, W.R. Carter and Captain E.H. Beebe.

On his arrival at Albrook Field, he was met by Brigadier General Herbert A. Dargue, commanding the 19th Wing, and by Colonel A.H. Gilkeson, commanding Albrook Field. All officers of the field were present as the General's ship landed.

Discussing housing conditions, the Chief of the Air Corps pointed out that of the numerous barracks and officers' quarters to be built on the Isthmus, Albrook will receive her share.

Wednesday morning and a portion of Wednesday afternoon were spent by General Arnold in inspecting the various functions under way on the Isthmus that pertain to Air Corps development. Included in his itinerary was a flight to Rio Hato, where the Air Corps Training School has been instituted, and a visit to France Field. He also spent some time looking at Howard Field, on Bruja Point, where a major portion of the work on a long new runway has been completed. He expressed satisfaction with the progress being made.

On his return to Albrook Field, at about 3:00 p.m., he was honored by members of the Albrook Field command. All ships were lined up on a taxi strip with combat crews in front of them. Major General Daniel Van Voorhis, Department Commander, and General Arnold, first inspected the Guard of Honor and then the ships and combat crews. Later they inspected barracks and various activities on the field.

General Arnold was the guest of honor at a reception at the Albrook Field Officers' Club on Wednesday night. He held at least one long conference with General Van Voorhis, and several conferences with other high ranking officers, including those at Albrook Field. He left the field Thursday morning for La Guira, Venezuela, and from there planned to head back north toward the United States with stops in Trinidad and San Juan, Puerto Rico, en route. He planned

to arrive in Washington, D.C., on or about May 15th.

France Field:

On Wednesday, May 7th, General Henry H. Arnold visited France Field. Arriving by air at 12:15 p.m. in an Army Transport, General Arnold inspected the personnel and equipment of this post. All of the men and planes were in parade formation on the flying field. The 14th Infantry band furnished the music during the inspection.

At 1:00 p.m., a luncheon in honor of General Arnold was served at the Officers' Club. The entire officer personnel and their wives had the opportunity of meeting and talking to the General personally. The Army Transport departed from France Field at 2:30 p.m., for Albrook Field, which is located on the Pacific side of the Isthmus. A reception was given for General Arnold by General Van Voorhis.

Everyone at France Field was happy to have had the opportunity of meeting the head of our branch of the service and such an important cog in the machinery of the nation's defense - the U.S. Army Air Corps. All hope that General Arnold will be able to pay us another visit and that he will be able to spend more time on our own France Field.

---oOo---

NEW CRASH BOAT FOR LANGLEY FIELD

A new crash boat, 72 feet long and equipped with two engines, will be added to the Langley Field fleet in the next few months, according to a report made today by Colonel Jacob W.S. Wuest, Commander of the Langley Field air base, by Lieut. Colonel Fred L. Black, the air base quartermaster.

Mr. Lavern L. Cockrell, of Hampton, the assistant engineer of the Quartermaster Corps at Langley Field, is now at the plant of the Greenport Basin and Construction Company, Greenpoint, Long Island, N.Y., where he will remain until the vessel is completed. He will also assist in the inspection and installation of the engines and equipment of the four other crash boats that are being manufactured for the Army Air Corps.

Colonel Wuest revealed that it is proposed to dredge a channel, approximately 60 feet wide and 250 feet long, from the Langley Field boathouse to the main channel of the Southwest branch of the Back River. The dredging of this channel is necessary to provide for the passage of a larger crash boat which will be used in case of an airplane crash in the river or the bay.

Letters were sent by Lieut. Colonel Walter Bender, Executive Officer of the Langley Field air base, to owners of oyster leases in that branch of the river. Their opinion has been requested as to the probable damage to oyster ground therein. It is desired to obtain releases from the lessees. In his letters, Col. Bender pointed out that the nearest point to any oyster lease which dredging will approach is approximately 500 feet. It is believed that no damage will be caused to any leases.

---oOo---

STUDENTS REPORT FOR ADVANCED TRAINING

A class of 213 students, who have just completed their basic flight instruction at Randolph Field, reported May 14th at Kelly Field, Texas, where they will wind up their training with three months of advanced work.

In the class were three student officers and 210 Flying Cadets. Of this number, 45 were sent to Brooks Field, sub-base of Kelly Field, to complete their course.

Upon their arrival at Kelly Field, the students were welcomed by Colonel Eugene A. Lohman, Commandant of the Air Corps Advanced Flying School, and then assigned to the various flying sections, supplied with necessary equipment and assigned quarters.

Beginning May 14th and continuing throughout the week, the new arrivals were slated to be given their physical examinations and ground school instruction preparatory to beginning actual flight instruction on Monday, May 20th.

Aside from the incoming class, Kelly and Brooks Fields have a class of 241 students who have to date completed one-half of the advanced course. This brings the total number of students now in training at the two advanced airdromes to 454.

---oOo---

Patterson Field Hospital (From Page 9)

alert, interested in their jobs, and busy. The pet of the hospital at the time was Buddy Schwichtenberg, the son of Captain Schwichtenberg, one of the staff physicians, who had suffered a fractured skull some time previously, but who was having such a good time, now that he was convalescent, in being a man among men that he showed not the least bit of interest in going home.

The best wishes from both Fields go with Colonel Baker to his new duties, and greetings are extended to his successor, Lieut. Colonel C.F. Snell, who arrived from Manila, P.I., to guide the fortunes of this "old-new" hospital.

NIGHT FLYING TRAINING AT RANDOLPH FIELD
By the News Letter Correspondent

Hundreds of hours nightly of night flying training are entirely possible in a Bombardment or Pursuit squadron or group. Navigation flights, with the planes scheduled to return to their home airdrome at intervals solves the problem. But to train 250 Flying Cadets in the rudiments of night landings and take-offs is another matter. Normally, night traffic control system at any military air field consists of a zoning system, dividing the air space into four sectors. A pilot is assigned each zone, and is cleared in for a landing, either by radio or a system of light signals.

Essentially, this is the system employed at Randolph Field, Texas, where classes of Flying Cadets get their first taste of night flying. However, instead of four zones, eight are used, and instead of one pilot and one plane to a zone, two craft are assigned each sector.

Minimum requirements for each class of Flying Cadets is approximately 750 hours of "N" time, that is, three hours per cadet. With the staggered system of classes, now being employed under the Air Corps Expansion Program, two basic classes always are in session, one six weeks further advanced than the other.

Let's take two specific classes and see how the night flying time is obtained. Class 40-A arrived at Randolph Field about October 1st of last year, the first class under the new system utilizing civilian flying schools. Six weeks later, Class 40-B arrived. Two separate and distinct basic schools had been organized at Randolph Field, each one utilizing one side of the four-sided airdrome. By the time 40-B arrived, Class 40-A was ready to start night flying.

Both sides of the field were assigned them for this work, and both radio control towers were used. An imaginary line was drawn down the center of Randolph Field proper, dividing it and the air space surrounding it into two halves. In each of these two main sectors, self-contained red blinker lights had been installed at proper locations, dividing each half of the field and its surrounding air space into four zones, a total of eight sectors.

Comes the take-off. "Flying Cadet Blank, ready to take off for Zone 1," blats the radio on a certain frequency. Only the east control tower hears that, however, for two frequencies are used.

"Tower to Mr. Blank...Are you upper or lower one?" You see, in addition to the four zones, there are also two divisions within the zone itself. Lower one is assigned the air space between 1000 and 1500 feet; upper one has the 500-foot interval between 2000 and 2500.

Thus, every week-day night, weather permitting, there are sixteen airplanes aloft, all within a five-mile radius of the field. On an average night, slightly more than 200 individual landings are made, approximately fifty airplane hours flown.

To explain the method used in getting the various upper and lower zones into landing position and back to their assigned locations is rather lengthy. It is sufficient to say that each of the sixteen planes has a definite path which he follows, both in approaching for a landing and also in returning to his zone. The control officer, through experience, has learned how to stagger the various schedules. At the start of a period, the upper planes are sent off first; remain below the 1000-foot level until they reach their zone, then climb to 2000 feet. Following them off are the four lower zones, also remaining below 1000 feet until in their zone, then up to the 1000-1500 level.

Lower one is called in for a landing, and upper one drops down into lower one's position, for he knows he is next. As the first student pilot is on his approach leg, the control tower calls upper one to start his approach. Landings are made at the rate of one minute throughout the operations period.

When the third phase of the night flying course is scheduled, third phase being landings by means of a flare, all students ease out into the far corners of their zone while upper one drops his flare and glides on in for his landing. Lower one climbs to the 2,000-foot level, drops his flare, and so on.

Of course, in addition to the radio used 95 percent of the time in controlling traffic, the familiar bar signals, red and green circles, and the light gun, also are used in case of transmitter or receiving failure.

This system of traffic control for student training activities during night flying is not entirely new. It has been in use for a couple of years, but in the past few months, however, it has reached a higher degree of proficiency than ever before, due to the increased flow of Flying Cadets.

---oOo---

GRADUATION OF CLASS 40-B AT KELLY FIELD

The News Letter Correspondent begins to feel that every time he sits down to prepare material for the Air Corps News Letter he starts off with a graduation write-up. Actually, this is not quite fact, but in every issue of late either a new class has just arrived at Kelly Field or a class is about to graduate, or a class has just graduated. With the expansion program in full swing, such actually is the case.

On May 11th, Class 40-B set a new record at the Training Center by graduating only seven weeks after Class 40-A, which graduated on March 23rd. Since recent developments tend to suggest that an even greater expansion is on the way, Kelly Field's boast that in two years it has quadrupled its annual pilot output is about to be belittled. However, Kelly Field has set a new peace-time record in graduating a class only seven weeks after the first class to graduate in 1940.

Colonel Eugene A. Lohman, Commandant of the Air Corps Advanced Flying School, introduced Colonel Augustine W. Robins, Commanding Officer of the Air Corps Training Center, who was the principal speaker at the graduation exercises. After Colonel Robins' address, he presented each graduate his diploma, while Col. Lohman presented each graduate with wings.

The names of the graduates of Class 40-B were listed in the previous issue of the Air Corps News Letter.

---oOo---

A TRIBUTE TO MASTER SERGEANT RALPH W. BOTTRIELL

By Gary F. Hinton, 24th Air Base Squadron, Kelly Field, Texas

The following poem is in tribute to Master Sergeant Ralph W. Bottriell, famous pioneer parachute jumper. His past and his work in this direction, I feel deserve a more lasting tribute than an unknown poet such as I can express. Even so, I sincerely believe that my poem, humble as it is, glorifies to some extent his lasting efforts and success.

In the hall of fame is carved the name,
Of a man as yet unsung,
Who takes his place with humble grace,
The heroes there among.
While above does soar the swift Air Corps,
In grandeur through the clouds,
His banner waving, all life saving,
A par'chute's silken shrouds.
A gasp, a sigh, a tear stained eye,
A trembling lip in prayer;
God praise his name, give him the fame,
Of conquest o'er the air.

---oOo---

FIRST WING CONCENTRATION AT MARCH FIELD, CALIF.

On May 2nd to 4th, tactical units of the 1st Wing, GHQ Air Force, held a Wing concentration at March Field, Calif. All tactical airplanes of the 20th Pursuit Group, Moffett Field; 7th Bombardment Group, Hamilton Field; 17th and 19th Bombardment Groups, and the 38th and 89th Reconnaissance Squadrons from March Field participated.

A problem was held in which San Clemente Island, off the coast of southern California, was defended from an invading force.

On the evening of May 3rd, a dinner was given at the Officers' Club, March Field, with all officers attending. Short skits were given to add to the gaiety of the occasion. A buffet dinner was also given for the combat crews in Hangar No. 8, with approximately 300 enlisted men present. Plenty of good food was available.

Officers were billetted in the post gymnasium and enlisted men in space available in the temporary barracks scattered about March Field. All participants agreed that all maneuvers should be thusly conducted.

---oOo---

NEW SIGNAL CORPS UNITS ACTIVATED AT LANGLEY

Three new Singal Corps organizations sprang into being on May 1st at Langley Field, Va., namely, the 301st and 303rd Signal Companies, Aviation, and the First Signal Platoon Air Base.

For several months, recruits and previous service men of the Signal Corps have been arriving at Langley Field. They were assigned to a temporary organization known as the Signal Detachment, GHQ Air Force, and were attached for rations and quarters to the First Air Base Squadron (Double). These men, 125 in number, have now become members of permanent organizations. They have been undergoing drill and training under Captain John H. Brewer, Signal Corps.

Although each of the Signal Companies, Aviation, are supposed to have a strength of four officers and 71 enlisted men, and the Air Base Signal Platoon a strength of one officer and 24 enlisted men, the expansion to that number has been deferred until funds become available. However, more men are expected in June from the graduating class of the Signal Corps School at Fort Monmouth, N.J.

Plans call for the assignment of the 301st Signal Company, Aviation, to duty with the Headquarters of the GHQ Air Force, and the 303rd Signal Company, Aviation, to the Second Wing Headquarters. The First Signal Platoon, Air Base, will serve with Langley Field Air Base Headquarters.

Describing the functions of these three new Signal Corps organizations, Captain Brewer stated that Signal Companies, Aviation, are charged with the installation, operations, and maintenance of all signal communication activities, except tactical radio, of the headquarters to which assigned, while the Signal Platoons, Air Base, will supplement the Signal Corps personnel furnished from the Corps Area Signal Service Company. In the case of Langley Field, this personnel is supplied by the 16th Signal Service Company of Baltimore, Md. All of the three new Langley Field units will be under the technical supervision of the Signal Officer, GHQ Air Force, Lieut. Colonel Cedric W. Lewis, Signal Corps.

WEST POINT CADETS TO VISIT LANGLEY FIELD

Grey clad cadets of the U.S. Military Academy at West Point, N.Y., about 450 of them, will descend on Langley Field, Va., during June. They will not arrive at one time but will be divided into three groups of 150 cadets each, to arrive on June 15th, 22nd and 29th. Each group will leave Langley Field on the Tuesday after its arrival. The Air Base organization is charged with the duty of providing accommodations for these cadets and for the arrangement of an aerial bombing and machine gun demonstration for each of the three cadet groups.

Arrangements will also be made for a visit by each cadet group to the laboratories of the National Advisory Committee for Aeronautics. The Air Base Commander, Colonel Jacob W.S. Wuest, has appointed seven officers to pilot the cadets around Langley Field and to provide their accommodations during their stay at Langley Field, viz: Lieut. Colonel Clyde V. Finter, officer in charge of cadet activities; 2nd Lieuts. Harvey C. Dorney, officer in charge of recreation and social activities; John P. Healey, assistant to Lieut. Dorney; Cyrus W. Kitchens, Jr., supply officer, and Keith K. Compton, mess officer; Major E.A. DeWitt, transportation officer, and Captain Kenneth G. Gould, medical officer.

During their stay at Langley Field, the cadets will be housed in the gymnasium, where beds will be made up, with racks for hanging clothing, and room orderlies to keep the building clean. They will eat their meals in messes of the 2nd Bombardment Group (H.). Iced water will be provided in the gymnasium.

The schedule for the cadets' visit calls for arrival of each group on Saturday at 11:00 a.m.; lunch at 1:00 p.m., and recreation, such as swimming, squash or boating at the option of the cadets during the remainder of the day.

On Saturdays, a convoy of trucks will convey the cadets to colonial Williamsburg, where they will tour the village. The tour to Williamsburg is optional, so that the young men may, if they wish, again engage in sports or trips to nearby beaches that will be arranged by the recreation officer.

Religious services will be held at the Air Base Chapel at 8:00, 10:00 and 11:00 a.m.

On Monday, visits will be made to the Base engineering departments, 2nd Bombardment Group and 8th Pursuit Group, in groups of approximately 50, spending about 30 minutes at each of the three activities. At the 2nd Bombardment Group, B-17 and B-18 Bombers will be on hand for inspection by the cadets, while the 8th Pursuit Group will display the P-36 and P-37 Pursuit planes.

The next item on the program will be a visit by truck to Messick Point to observe bombing and aerial gunnery demonstrations. In the afternoon, cadets will be given an opportunity to fly in B-17 airplanes of the 2nd and 25th Bombardment Groups. Cadets who are not scheduled to fly will be given an opportunity to engage in recreational activities.

On Tuesday the cadets will spent the entire morning at the N.A.C.A. Laboratory, and they will leave by air at 1:30 p.m. for Wright Field, Dayton, Ohio.

MOFFETT FIELD ACTIVITIES

It was learned that the 82nd Observation Squadron, which left in the middle of May for maneuvers, will participate in the Fourth Army war games in Washington, to be held in August.

Plans have been made for the mobile troops of this section of the Army, numbering approximately 40,000 officers and men, to train south of Fort Lewis, near Centralia and Chehalis, Wash. The 82nd Squadron is one of six aerial units to participate, while other troops from Monterey, Fort Scott and Fort MacArthur and other California points, will join in.

Seven AT-6 airplanes were recently flown to Moffett Field, Calif., from the North American factory at Los Angeles. Three of these planes were assigned to the 35th Pursuit Group and four to the 20th Pursuit Group, to be used for instrument training.

Means for instrument training in the Pursuit Groups have been very inadequate, and the delivery of these planes will provided the needed means for the Pursuit pilots to obtain this training.

Six pilots of the 55th Pursuit Squadron, 35th Pursuit Group, attended the 1st Wing Exercise at March Field, Calif., on May 2nd and 3rd. After the exercise they flew to Muroc Lake, where they finished firing the ground gunnery course. This is the last phase of the yearly training and finishes the 55th's training directive 100% for the Fiscal Year 1939-1940.

Officers of the 18th Pursuit Squadron, 35th Pursuit Group, who participated in the war games at March Field recently, included Captain Norman D. Sillin, 2nd Lieuts. H. Viccellio, Patrick H. Arnold, Charles A. Gayle, Cecil J. Looke, Jr., and William A. Bowie.

Extended navigation flights were made by two officers of the Hqrs. and Hqrs. Squadron, 35th Pursuit Group, during the past month. Major George P. Tourtellot flew to Fort Leavenworth, Kans., on April 21st and returned on April 27th, while Cincinnati, Ohio, was the destination of 2nd Lieut. Lawrence R. Gibboney, Air Reserve, who flew there on April 20th and returned several days later.

94TH PURSUIT SQUADRON RETURNS FROM MANEUVERS

The 94th Pursuit Squadron (Int.) returned to Selfridge Field, Mich., on May 12th, after an arduous week in the field, during which time the unit actively participated in the Third Army Maneuvers. Based at McComb, Miss., the Squadron spent a busy week of patrol and interception work. Recreational activities included skeet shooting, horseshoe pitching and baseball.

Upon returning to Selfridge Field, the Squadron began preparations for training the eight new pilots who arrived during its absence, viz: Lieuts. Sheppard, Strauss, Mahoney, McCallum, MacInnes, Sloan, Thyng and Young.

your Landing Was Rather Rough, Look At The Landing Gear-SIR!!
Ouch!!
Landing Gear